

REMARKS

This is a full and timely response to the non-final Office Action of August 27, 2007.

Reexamination, reconsideration, and allowance of the application and all presently pending claims are respectfully requested.

Upon entry of this First Response, claims 1-10 and 12-27 are pending in this application. Claims 1, 7, 8, 13, 17, 18, and 21 are directly amended herein. In addition, claim 11 is canceled, and claims 24-27 are newly added. It is believed that the foregoing amendments add no new matter to the present application.

Response to §103 Rejections

In order for a claim to be properly rejected under 35 U.S.C. §103, the combined teachings of the prior art references must suggest all features of the claimed invention to one of ordinary skill in the art. See, e.g., *In Re Dow Chemical Co.*, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981). In addition, "(t)he PTO has the burden under section 103 to establish a *prima facie* case of obviousness." *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

Claim 1

Claim 1 presently stands rejected under 35 U.S.C. §103 as purportedly being unpatentable over *Renucci* (U.S. Patent No. 6,996,134) in view of *Daruwalla* (U.S. Patent No. 7,058,007). Claim 1 reads as follows:

1. A communication system, comprising:
a first transceiver ***coupled to a first subscriber line***, the first transceiver configured to communicate via the first subscriber line with a remote transceiver that is located at a remote premises and coupled to the first subscriber line, the ***first subscriber line comprising a first plurality of conductive connections***

extending from the first transceiver to the remote transceiver coupled to the first subscriber line;

a second transceiver **coupled to a second subscriber line**, the second transceiver configured to communicate via the second subscriber line with a remote transceiver that is located at the remote premises and coupled to the second subscriber line, **the second subscriber line comprising a second plurality of conductive connections extending from the second transceiver to the remote transceiver coupled to the second subscriber line;**

a third transceiver **coupled to a third subscriber line**, the third transceiver configured to communicate via the third subscriber line with a remote transceiver that is located at the remote premises and coupled to the third subscriber line, **the third subscriber line comprising a third plurality of conductive connections extending from the third transceiver to the remote transceiver coupled to the third subscriber line;** and

logic configured to receive a data stream comprising data to be received by data communication equipment at the remote premises, the logic configured to split the data stream such that a portion of the data is modulated and transmitted by the first transceiver across the first plurality of conductive connections to the remote transceiver coupled to the first subscriber line while a portion of the data stream is modulated and transmitted by the second transceiver across the second plurality of conductive connections to the remote transceiver coupled to the second subscriber line, **the logic configured to switch communication from the first transceiver to the third transceiver in response to a detection of a communication problem associated with the first subscriber line such that a portion of the data is modulated and transmitted by the third transceiver across the third plurality of conductive connections to the remote transceiver coupled to the third subscriber line while a portion of the data stream is modulated and transmitted by the second transceiver across the second plurality of conductive connections to the remote transceiver coupled to the second subscriber line, the logic further configured to switch communication from the second transceiver to the third transceiver in response to a detection of a communication problem associated with the second subscriber line such that a portion of the data is modulated and transmitted by the third transceiver across the third plurality of conductive connections to the remote transceiver coupled to the third subscriber line while a portion of the data stream is modulated and transmitted by the first transceiver across the first plurality of conductive connections to the remote transceiver coupled to the first subscriber line.** (Emphasis added).

Applicants respectfully assert that the alleged combination fails to suggest at least the features of pending claim 1 highlighted hereinabove.

In this regard, in at least some contexts, *Renucci* appears to use the term “subscriber line” to refer to a data channel and not the actual loop on which the channel is communicated. See column 3, lines 30-33. Indeed, in the example provided by *Renucci*, the same local loop 18A is

used for one channel or "subscriber line" enabling communication with phone 16A and for another channel or "subscriber line" enabling communication with personal computer 16B. See column 3, lines 36-41, and Figure 1. *Renucci* indicates that the term "subscriber line" may also be used to refer to "a telecommunication line or a logical telecommunication line." Regardless of the terminology used, it is evident that that component 18A is a single local loop. In this regard, *Renucci* specifically teaches that "each local loop 18 is a twisted-pair copper wire phone line, and each local loop 18 is used to communicate multiple subscriber lines." Column 3, lines 31-33.

It is alleged in the Office Action that "Renucci teaches a digital modulator/demodulator 58 may use a number of transceivers to merge two or more subscriber lines into a single modulated signal [**col. 5 lines 33-42 and figure 3**]." However, the information from the merged subscriber lines is apparently communicated over a single local loop 18. Thus, the multiple "subscriber lines" at the cited section of *Renucci* cannot constitute the three "subscriber lines" described by claim 1, since each of the "subscriber lines" recited by claim 1 comprises a respective "plurality of conductive connections" that extend from a respective one of the "first," "second," and "third" transceivers to a "remote transceiver" at the "remote premises."

In addition, it is also alleged in the Office Action that "*Renucci* teaches an appropriate lifeline path 96 is switched to low impedance to enable the Added-Main-Line (AML) concentrator to send and receive information over a local loop [**col. 6 lines 5-10 and figure 3**]." Indeed, in a normal mode of operation, the lifeline path 96 is apparently in a high impedance state, and the DSLAM is used 26 to communicate across a local loop. In a backup mode of operation, the lifeline path 96 is apparently switched to low impedance to allow the AML concentrator 24, instead of the DSLAM, to communicate across the local loop. However, in both modes of operation, communication occurs across the **same** local loop. In the present invention, as defined by claim 1, communication is switched from one transceiver to another transceiver, which is coupled to and

communicates across a different "subscriber line." In addition, *Daruwalla* fails to remedy the deficiencies of *Renucci*.

Furthermore, Applicants submit that neither *Renucci* nor *Daruwalla* teaches splitting a data stream for the alleged "transceivers," as recited by claim 1.

For at least the above reasons, Applicants respectfully assert that the cited art fails to suggest each feature of claim 1. Thus, the 35 U.S.C. §103 rejection of claim 1 should be withdrawn.

Claims 2-6

Claims 2, 3, and 5 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* in view of *Daruwalla*. In addition, claim 4 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by *Daruwalla* and further in view of *Doll* (U.S. Patent No. 5,694,398), and claim 6 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by *Daruwalla* in view of *Obelode* (U.S. Patent No. 4,935,642). Applicants submit that the pending dependent claims 2-6 contain all features of their respective independent claim 1. Since claim 1 should be allowed, as argued hereinabove, pending dependent claims 2-6 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 7

Claim 7 presently stands rejected under 35 U.S.C. §103 as purportedly being unpatentable over *Renucci* in view of *Daruwalla*. Claim 7 reads as follows:

7. A communication system, comprising:

a first transceiver ***coupled to a first subscriber line***, the first transceiver configured to communicate via the first subscriber line with a remote transceiver that is located at a remote premises and coupled to the first subscriber line, ***the first subscriber line comprising a first plurality of conductive connections extending from the first transceiver to the remote transceiver coupled to the first subscriber line***;

a second transceiver ***coupled to a second subscriber line***, the second transceiver configured to communicate via the second subscriber line with a remote transceiver that is located at the remote premises and coupled to the second subscriber line, ***the second subscriber line comprising a second plurality of conductive connections extending from the second transceiver to the remote transceiver coupled to the second subscriber line***;

a third transceiver ***coupled to a third subscriber line***, the third transceiver configured to communicate via the third subscriber line with a remote transceiver that is located at the remote premises and coupled to the third subscriber line, ***the third subscriber line comprising a third plurality of conductive connections extending from the third transceiver to the remote transceiver coupled to the third subscriber line***; and

logic configured to receive an input data stream comprising data to be received by data communication equipment at the remote premises, the logic configured to split the data stream into at least a first output data stream and a second output data stream, wherein the first transceiver is configured to transmit at least a portion of the first output data stream across the first subscriber line while the second transceiver is transmitting at least a portion of the second output data stream across the second subscriber line, ***the logic further configured to enable the third transceiver to selectively backup both of the first and second transceivers such that the third transceiver communicates a portion of either the first or second output data stream in response to a detection of a communication problem while one of the first and second transceivers is communicating a portion of the other output data stream.*** (Emphasis added).

For at least reasons similar to those set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the cited art fails to suggest at least the features of claim 7 highlighted above. Thus, the 35 U.S.C. §103 rejection of claim 7 should be withdrawn.

Claims 8-10, 12, and 24-26

Claims 8 and 12 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* in view of *Daruwalla*. In addition, claim 9 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by *Daruwalla* and further in view of *Doll*, and claim 10 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by *Daruwalla* in view of *Obelode*. Also, claims 24-26 have been newly added via the amendments set forth herein. Applicants submit that the pending dependent claims 8-10, 12, and 24-26 contain all features of their respective independent claim 7. Since claim 7 should be allowed, as argued hereinabove, pending dependent claims 8-10, 12, and 24-26 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 13

Claim 13 presently stands rejected under 35 U.S.C. §103 as purportedly being unpatentable over *Renucci* in view of *Daruwalla*. Claim 13 reads as follows:

13. A communication system, comprising:

a first transceiver ***coupled to a first subscriber line***, the first transceiver configured to communicate via the first subscriber line with a remote transceiver that is located at a remote premises and coupled to the first subscriber line, ***the first subscriber line comprising a first plurality of conductive connections extending from the first transceiver to the remote transceiver coupled to the first subscriber line;***

a second transceiver ***coupled to a second subscriber line***, the second transceiver configured to communicate via the second subscriber line with a remote transceiver that is located at the remote premises and coupled to the second subscriber line, ***the second subscriber line comprising a second plurality of conductive connections extending from the second transceiver to the remote transceiver coupled to the second subscriber line;***

a third transceiver ***coupled to a third subscriber line***, the third transceiver configured to communicate via the third subscriber line with a remote transceiver that is located at the remote premises and coupled to the third subscriber line, ***the third subscriber line comprising a third plurality of conductive connections***

extending from the third transceiver to the remote transceiver coupled to the third subscriber line; and

logic configured to split an input data stream into at least a first output data stream and a second output data stream, the logic configured to interface the first and second output data streams with the first and second transceivers such that the first and second transceivers respectively transmit the first and second output data streams on the first and second subscriber lines, **the logic further configured to interface one of the output data streams with the third transceiver in response to a communication problem associated with one of the first and second subscriber lines, the logic further configured to dynamically select the one output data stream for interfacing with the third transceiver based on which of the first and second subscriber lines is associated with the communication problem.** (Emphasis added).

For at least reasons similar to those set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the cited art fails to suggest at least the features of claim 13 highlighted above. Thus, the 35 U.S.C. §103 rejection of claim 13 should be withdrawn.

Claims 14-16

Claim 15 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* in view of *Daruwalla*. In addition, claim 14 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by *Daruwalla* and further in view of *Doll*, and claim 16 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by *Daruwalla* in view of *Obelode*. Applicants submit that the pending dependent claims 14-16 contain all features of their respective independent claim 13. Since claim 13 should be allowed, as argued hereinabove, pending dependent claims 14-16 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 17

Claim 17 presently stands rejected under 35 U.S.C. §103 as purportedly being unpatentable over *Renucci* in view of *Daruwalla*. Claim 17 reads as follows:

17. A communication method, comprising the steps of:
receiving a data stream;
splitting the data stream into at least a first data stream and a second data stream;
communicating at least a portion of the first data stream between a first pair of transceivers on a first subscriber line, the first subscriber line extending from one of the first pair of transceivers to the other of the first pair of transceivers and comprising a first twisted pair,
communicating, during the communicating at least the portion of the first data stream step, at least a portion of the second data stream between a second pair of transceivers on a second subscriber line, the second subscriber line extending from one of the second pair of transceivers to the other of the second pair of transceivers and comprising a second twisted pair, and
enabling a third pair of transceivers coupled to a third subscriber line to selectively backup both of the first and second pair of transceivers such that the third pair of transceivers communicates a portion of either the first or second data stream in response to a detection of a communication problem during one of the communicating steps, the third subscriber line extending from one of the third pair of transceivers to the other of the third pair of transceivers and comprising a twisted pair. (Emphasis added).

For at least reasons similar to those set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the cited art fails to suggest at least the features of claim 17 highlighted above. Thus, the 35 U.S.C. §103 rejection of claim 17 should be withdrawn.

Claims 18-20 and 27

Claim 18 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* in view of *Daruwalla*. In addition, claim 19 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by *Daruwalla* and further in view of *Doll*, and claim 20 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by

Daruwalla in view of *Obelode*. Also, claim 27 has been newly added via the amendments set forth herein. Applicants submit that the pending dependent claims 18-20 and 27 contain all features of their respective independent claim 17. Since claim 17 should be allowed, as argued hereinabove, pending dependent claims 18-20 and 27 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 21

Claim 21 presently stands rejected under 35 U.S.C. §103 as purportedly being unpatentable over *Renucci* in view of *Daruwalla*. Claim 21 reads as follows:

21. A communication method, comprising the steps of:
splitting a data stream into a first data stream and a second data stream;
interfacing the first data stream with a first transceiver such that the first data stream is communicated by the first transceiver on a first subscriber line to a remote transceiver that is located at a remote premises and coupled to the first subscriber line, ***the first subscriber line comprising a first plurality of conductive connections extending from the first transceiver to the remote transceiver coupled to the first subscriber line;***
interfacing, during the interfacing the first data stream step, the second data stream with a second transceiver such that the second data stream is communicated by the second transceiver on a second subscriber line to a remote transceiver that is located at the remote premises and coupled to the second subscriber line, ***the second subscriber line comprising a first plurality of conductive connections extending from the second transceiver to the remote transceiver coupled to the second subscriber line;***
detecting a communication problem associated with one of the first and second subscriber lines;
interfacing, in response to the detecting step and during one of the interfacing steps, one of the first and second data streams with a third transceiver such that the one data stream is communicated by the third transceiver on a third subscriber line to a remote transceiver that is located at the remote premises and coupled to the third subscriber line, ***the third subscriber line comprising a third plurality of conductive connections extending from the third transceiver to the remote transceiver coupled to the third subscriber line;*** and
dynamically selecting the one data stream to be interfaced with the third transceiver in response to the detecting step based on which of the first and second subscriber lines is associated with the communication problem. (Emphasis added).

For at least reasons similar to those set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the cited art fails to suggest at least the features of claim 21 highlighted above. Thus, the 35 U.S.C. §103 rejection of claim 21 should be withdrawn.

Claims 22 and 23

Claim 22 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by *Daruwalla* and further in view of *Doll*, and claim 23 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Renucci* as modified by *Daruwalla* in view of *Obelode*. Applicants submit that the pending dependent claims 22 and 23 contain all features of their respective independent claim 21. Since claim 21 should be allowed, as argued hereinabove, pending dependent claims 22 and 23 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).


CONCLUSION

Applicants respectfully request that all outstanding objections and rejections be withdrawn and that this application and all presently pending claims be allowed to issue. If the Examiner has any questions or comments regarding Applicants' response, the Examiner is encouraged to telephone Applicants' undersigned counsel.

Respectfully submitted,

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